

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Canceled.)
2. (Currently amended) The low noise amplifier of claim 6 ~~[[1]]~~, wherein the first and second diodes are formed by one of polymer devices and metal oxide silicon devices.
3. (Currently amended) The low noise amplifier of claim 6 ~~[[1]]~~, further comprising an additional circuit of the low noise amplifier associated with the radio frequency input wherein:
~~the first supply is one of a low voltage supply and a high voltage supply;~~
if the additional circuit is referenced to the first supply is a low voltage supply, then the electrostatic discharge protection circuit is not directly coupled to ~~the a~~ a corresponding high voltage supply; and
if the additional circuit is referenced to the first supply is a high voltage supply, then the electrostatic discharge protection circuit is not directly coupled to ~~the a~~ a corresponding low voltage supply.
- 4-5. (Canceled)

6. (Currently amended) A ~~[[The]]~~ low noise amplifier ~~of claim 5, comprising:~~
a radio frequency input;
an electrostatic discharge protection circuit including:
a pair of diodes each having a first and a second terminal;
a first diode of the pair having a first terminal coupled to the radio frequency
input and a second terminal directly coupled to a low voltage supply; and
a second diode of the pair having a second terminal coupled to the radio
frequency input and a first terminal directly coupled to the low voltage supply; and
an electrostatic discharge clamp directly coupled between a high voltage supply and the
low voltage supply so as to provide a discharge path between the high voltage supply and the
low voltage supply during an electrostatic discharge event,
wherein the electrostatic discharge protection circuit is operable to float the low voltage
supply floats during and to shunt:
the radio frequency input to high voltage supply positive discharge pulse using the
second diode and the electrostatic discharge clamp, and
the radio frequency input to high voltage supply negative discharge pulse using
the first diode and the electrostatic discharge clamp.

7. (Currently amended) A ~~[[The]]~~ low noise amplifier ~~of claim 5~~, comprising:
a radio frequency input;
an electrostatic discharge protection circuit including:
a pair of diodes each having a first and a second terminal;
a first diode of the pair having a first terminal coupled to the radio frequency
input and a second terminal directly coupled to a low voltage supply; and
a second diode of the pair having a second terminal coupled to the radio
frequency input and a first terminal directly coupled to the low voltage supply; and
an electrostatic discharge clamp directly coupled between a high voltage supply and the
low voltage supply so as to provide a discharge path between the high voltage supply and the
low voltage supply during an electrostatic discharge event,
wherein the electrostatic discharge protection circuit is operable to float the high voltage
supply floats during and to shunt:
the radio frequency input to low voltage supply positive discharge pulse using the
second diode, and
the radio frequency input to low voltage supply negative discharge pulse using the
first diode.

8. (Currently amended) The low noise amplifier of claim 6 ~~[[1]]~~, wherein the low noise amplifier is compliant with an IEEE standard selected from the group consisting of 802.11, 802.11a, 802.11b, 802.11e, 802.11g, 802.11h, and 802.11i, and 802.14.

9-17. (Canceled)

18. (Currently amended) The circuit of claim 22 ~~[[17]]~~, wherein the first and second diodes are formed by one of polymer devices and metal oxide silicon devices.

19. (Currently amended) The circuit of claim 22 ~~[[17]]~~, wherein the input/output pad

is associated with a separate circuit and:

~~the first supply is one of a low voltage supply and a high voltage supply;~~

if the separate circuit is referenced to the first supply is a low voltage supply, then the electrostatic discharge protection circuit is not directly coupled to ~~the a corresponding~~ high voltage supply; and

if the separate circuit is referenced to the first supply is a high voltage supply, then the electrostatic discharge protection circuit is not directly coupled to ~~the a corresponding~~ low voltage supply.

20-21. (Canceled.)

22. (Currently amended) [[The]] An electrostatic discharge protection circuit of claim 21, comprising:

a pair of diodes each having a first and a second terminal;

a first diode of the pair having a first terminal coupled to an input/output pad and a second terminal directly coupled to a low voltage supply; and

a second diode of the pair having a second terminal coupled to the input/output pad and a first terminal directly coupled to the low voltage supply; and

an electrostatic discharge clamp directly coupled between a high voltage supply and the low voltage supply so as to provide a discharge path between the high voltage supply and the low voltage supply during an electrostatic discharge event,

wherein the electrostatic discharge protection circuit is operable to float the low voltage supply floats during and to shunt:

the input/output pad to high voltage supply positive discharge pulse using the second diode and the electrostatic discharge clamp, and

the input/output pad to high voltage supply negative discharge pulse using the first diode and the electrostatic discharge clamp.

23. (Currently amended) ~~[[The]]~~ An electrostatic discharge protection circuit of claim 24, comprising:

a pair of diodes each having a first and a second terminal;
a first diode of the pair having a first terminal coupled to an input/output pad and a second terminal directly coupled to a low voltage supply; and
a second diode of the pair having a second terminal coupled to the input/output pad and a first terminal directly coupled to the low voltage supply; and
an electrostatic discharge clamp directly coupled between a high voltage supply and the low voltage supply so as to provide a discharge path between the high voltage supply and the low voltage supply during an electrostatic discharge event,

wherein the electrostatic discharge protection circuit is operable to float the high voltage supply floats during and to shunt:

an [[the]] input/output pad to low voltage supply positive discharge pulse using the second diode, and

an [[the]] input/output pad to low voltage supply negative discharge pulse using the first diode.

24-31. (Canceled.)

32. (Currently amended) The method of claim 35 ~~[[31]]~~, wherein the input/output pad is associated with a circuit and:

providing the first discharge path and the second discharge path includes providing the first discharge path and the second discharge path between the input/output pad and one of a low voltage supply and a high voltage supply;

if the circuit is referenced to first discharge path and the second discharge path are provided between the input/output pad and the low voltage supply, then not providing a direct discharge path between the input/output pad and the a corresponding high voltage supply; and

if the circuit is referenced to first discharge path and the second discharge path are

~~provided between the input/output pad and the high voltage supply, then not providing a direct discharge path between the input/output pad and the a corresponding low voltage supply.~~

33-34. (Canceled.)

35. (Currently amended) A [[The]] method of claim 34 for discharging electrostatic discharge, comprising:

providing a first direct discharge path between an input/output pad and a low voltage supply;

providing a second direct discharge path between the input/output pad and the low voltage supply;

providing a third discharge path between the low voltage supply and a high voltage supply during an electrostatic discharge event; and

floating the low voltage supply while wherein

shunting an input/output pad to high voltage supply positive discharge pulse using the second direct discharge path and the third discharge path, and

shunting an input/output pad to high voltage supply negative discharge pulse using the first direct discharge path and the direct discharge path includes floating the low voltage supply.

36. (Currently amended) A [[The]] method of claim 34 for discharging electrostatic discharge, comprising:

providing a first direct discharge path between an input/output pad and a low voltage supply;

providing a second direct discharge path between the input/output pad and the low voltage supply;

providing a third discharge path between the low voltage supply and a high voltage supply during an electrostatic discharge event; and

floating the high voltage supply while wherein

shunting an input/output pad to low voltage supply positive discharge pulse using the second direct discharge path, and

shunting an input/output pad to low voltage supply negative discharge pulse using the first direct discharge path includes floating the high voltage supply.

37-38. (Canceled.)

39. (New) The low noise amplifier of claim 7, wherein the first and second diodes are formed by one of polymer devices and metal oxide silicon devices.

40. (New) The low noise amplifier of claim 7, further comprising an additional circuit of the low noise amplifier associated with the radio frequency input wherein:

if the additional circuit is referenced to the low voltage supply, then the electrostatic discharge protection circuit is not directly coupled to the high voltage supply; and

if the additional circuit is referenced to the high voltage supply, then the electrostatic discharge protection circuit is not directly coupled to the low voltage supply.

41. (New) The low noise amplifier of claim 7, wherein the low noise amplifier is compliant with an IEEE standard selected from the group consisting of 802.11, 802.11a,

802.11b, 802.11e, 802.11g, 802.11h, and 802.11i, and 802.14.

42. (New) The circuit of claim 23, wherein the first and second diodes are formed by one of polymer devices and metal oxide silicon devices.

43. (New) The circuit of claim 23, wherein the input/output pad is associated with a separate circuit and:

if the separate circuit is referenced to the low voltage supply, then the electrostatic discharge protection circuit is not directly coupled to the high voltage supply; and

if the separate circuit is referenced to the high voltage supply, then the electrostatic discharge protection circuit is not directly coupled to the low voltage supply.

44. (New) The method of claim 36, wherein the input/output pad is associated with a circuit and:

if the circuit is referenced to the low voltage supply, then not providing a direct discharge path between the input/output pad and the high voltage supply; and

if the circuit is referenced to the high voltage supply, then not providing a direct discharge path between the input/output pad and the low voltage supply.